THE CONCEPT OF NEUTRAL INFLATION AND ITS APPLICATION TO THE EU ECONOMIC GROWTH ANALYSES

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Abstract

The prospects of economic growth in the Euro area depend, to a large extent, on the way in which its participants will solve the problems of economic stabilisation; they depend on whether the conceptual dogmas will prevail in the stabilisation policy or the tendency to make the stabilisation policy instruments more flexible and adjustable to changes in the economic situation. The system of restrictions imposed upon the EU countries by the Maastricht Treaty and the Stability and Growth Pact fulfilled its tasks in the sense that it enabled the indispensable co-ordination of the economic policies of these countries and introduction of the common currency.

It seems now that the framework is too rigid and single-mindedly aimed at persuing one goal only (i.e. price stability) and, therefore, in the long run, it cannot be a useful tool of integration and creation of favourable conditions for the development in the Euro area countries. Hence it seems that the reform of the system is inevitable and it should rely on using the opportunities offered by both - monetary and fiscal policy.

JEL Clasiification: F, F3, F36

1. Introduction

Economic growth is the most important effect of human activities. It allows to satisfy man's growing needs and aspirations and face the challenges of global competition. In search of sustainable growth factors, in the mid-twentieth century European countries made an unprecedented attempt to use integration mechanisms for the creation of the biggest in history economic body which would affect global economy. The reference here for European economic aspirations was the US economy, which they intended to outdo shortly in the spheres of economic potential and developmental opportunities. As a matter of fact, the gap between the economic growth of the EU countries and the USA did not seem big and appeared to be easy to overcome. For example, in the 1980s the average growth rate in the

USA was by 0.5 per cent higher than in the EU countries, whereas in the 1990s it diminished even further to only 0.2 per cent.

The situation, however, changed radically in the new century when the American economy developed almost twice as fast as the economies of the EU countries. The differences in the growth rate between the USA and the EU were accompanied by deeper differences in the utilisation of the production potential. For instance, after 2000, the unemployment rate in the American economy stood at 4 - 6% while in the Euro area it was at the level of 8-9%. Such substantial differences, unfavourable for the EU countries, appeared despite progressing integration, which resulted in the creation of the Economic and Monetary Union and introduction of the common currency (Euro) in 1999.

Without discussing a variety of factors which may have influenced the course of economic processes in the Euro area countries, it is worthwhile to try to answer a number of questions related to the institutional and legal conditions in these countries, especially in the context of their impact on the economic growth and degree of utilisation of the production potential.

The questions that require answers are the following:

1. is the close following of the Maastricht criteria which are the foundations of the Economic and Monetary Union the reason for stagnation processes in economy?
2. what is, and what should the role of price stabilisation policy be in forming the conditions for economic growth in the Economic and Monetary Union countries?

2.Discussion on the essence of economic growth and European growth model

In the last few years one can find opinions in economic literature that question the usefulness of the GDP as an economic growth indicator. According to Dasgupta [Dasgupta, 2004 and 2005] growth in wealth is a better indicator. It is defined as progressively increasing fixed capital but it also takes into consideration improvements in the areas of knowledge,

qualifications, society's health, improved functioning of institutions, emergence of civil society, etc. Scientific discussions on this topic are also reflected in the documents of the Commission of the European Communities which try to reconcile traditionally understood economic growth with social cohesion and environmental protection [COM, 2001; SEC, 2005]. It would be difficult not to agree with these documents and the strategy aimed at „clear, stable and long term objectives (which) will shape expectations and create the conditions in which businesses have the confidence to invest in innovative solutions and to create new, high quality jobs" [COM, 2001], yet it seems that this strategy shifts too much accent of economic policy to aspects which are not decisive for current economic problems.

The most important problem the European Community is facing now is the problem of rising unemployment as the effect of too slow traditionally defined economic growth. One of the GDP components are investments which, in turn, influence directly the number of jobs. It is necessary to consider how to make investments more dynamic if one wants to improve the situation in the labour market; what macroeconomic conditions must be created to make the increase in investments strong enough to make up for the effects of substituting employment with modern technology and to bring about a sufficient net result in the form of gradual reduction in labour force surplus. Only the growth in employment, creation of conditions for a more effective utilisation of the basic production factor, namely labour, will enable more dynamic growth of other elements which contribute to wealth (knowledge, qualifications, civil society, etc.). In other words, European development programmes should emphasise not only qualitative aspects („innovative solutions", „high quality jobs") but also or perhaps, firstly and foremost, quantitative aspects. The tool to realise the pro-investment policy should be a properly articulated macroeconomic policy (monetary, fiscal and exchange rate policies) strengthened by other instruments of economic policy (policies related to investments, research and innovation, structural and environmental protection policies, etc.)

The main objective of such a policy should be creation of the milieu which would help to overcome the economic phenomena which brought about the „European model of economic growth". This model emerged as a result of a number of conditions which had been the background for the EU countries since the 1960s. It is a paradox that one of the main conditions were the activities undertaken by these countries with the aim of closer integration and in particular creation of the Economic and Monetary Union. This ambitious objective caused that the EU countries implemented the strategy which minimised the risk of financial destabilisation. This led to the situation where, on the one hand, they were aware of the necessity to accelerate growth in order to meet first - the „American challenge", then - the „Japanese challenge" and eventually the one posed by the „Asian Tigers" or the „Chinese Dragon"; on the other hand, they realised the risk which the countries embarking upon the path of accelerated growth face. This risk includes, among others, the shaken balance of payments, increased budget deficit and, eventually, destabilised prices and exchange rate.

Indeed, the countries which were a model of growth for the European Union, on many occasions experienced destabilisation of macroeconomic balance indicators as a result of the accelerated growth. For example, in the 1980s, the United State experienced the period of high budget deficits and the balance of payments deficit. The countries of South East Asia experienced numerous monetary crises in the 1990s. The Japanese economy, following two decades of accelerated growth, had to face the period of slowdown in the context of strong deflation pressure and actually it has not been able to cope with it for a number of years. An exception here is China which has been developing fast for three decades and macroeconomic indicators have been stable there.

In order to safeguard themselves against the risk of destabilised growth, on 7 February 1992, the EU countries signed the above mentioned Maastricht Treaty which rigorously defined the framework within which financial policy of particular national governments can

be used as a tool of economic stabilisation. In the background of the regulations which were then introduced there was an assumption that further development of economic integration (with prospective introduction of the common currency) and gradual accession of Central and Eastern European countries to the EU economic system can significantly accelerate the development of the whole integrating group.

Table 1

Economic growth of the EU countries against the background of the main actors of global economy in the years 1979-2005 (average annual rate of real GDP growth (%)

Specification	1979-1989	1990-1995	1996-2000	2001-2005	1990-2005
Euro area countries	2.2	1.8	2.6	1.4	1.9
Great Britain	2.3	1.5	3.1	2.3	2.3
Sweden	2.2	0.8	3.2	2.2	2.1
Denmark	1.4	1.8	2.7	1.4	2.0
Greece	0.8	1.0	3.4	4.3	2.9
Portugal	3.3	2.1	3.9	0.6	2.2
Spain	2.7	1.9	3.8	3.1	2.9
USA	3.0	2.4	4.1	2.6	3.0
Japan	3.7	2.1	1.4	1.5	1.7
China	9.5 (1)	10.6	8.3	9.5	9.5
Russia	-	-9.1 (2)	1.6	6.1	-0.7 (3.8) 3)
World	3.3 (4)	2.9	3.9	4.0	3.6

(1) Years 1980-1989. (2) Years 1991-1995. (3) Years 1996-2005. (4) Years 1980-1989.
Source: author's own calculations on the basis: OECD Economic Outlook No. 75/2004 and 79/2006, Statistical Annex Tables, Table 1; IMF. World Economic Outlook, May 1998, Statistical Appendix, pp. 145-146, September 2004, Statistical Appendix, pp. 199-205 and September 2006, Statistical Appendix, pp. 189-195.

The data included in Table 1 indicate that those forecasts were not quite accurate. Therefore, it is possible to speak about the „European model of economic growth". This model is characterised by relatively high sustainable growth, nevertheless, growth indicators are at a relatively low level. In the years 1990 - 2005, the economy of the Euro area countries developed at the rate of 1.9% per year whereas the American economy revealed the average growth rate of 3.0% and the Chinese one 9.5% per year. In the EU-15 countries the growth rate is diversified. An above average growth rate was revealed by the countries outside the Euro area and those less developed, i.e. Spain, Portugal and Greece. However, in both sub-groups the average growth rate stood below 3% and only periodically exceeded 4% per year.

The longest, four-year period of sustainable growth when the rate of growth exceeded 4% per year was noted in Spain between 1997 and 2000 [OECD, 2004].

Conclusions drawn from the data included in Table 1:

1. The EU membership does not translate automatically into accelerated growth rate because for example Spain and Portugal, prior to joining the Union, revealed the growth rate about 1.2-1.3 p.p. higher that that observed in the Euro area countries; on joining the Union, their growth rate, though still higher than that in the Euro area, started to get closer to it.
2. Closer integration with other EU countries, e.g. by joining the monetary union, does not have to translate into accelerated growth.

As it seems, the EU membership, especially in the Euro area, in the long run means convergence with the growth model typical for the main EU countries, i.e. Germany, France, Italy and Great Britain. Table 2 contains other characteristic features of this model. First of all, it is characterised by reduced fixed capital formation and poor labour productivity growth.

In both cases, the European economy loses in comparison to the American one and it resembles more the Japanese economy which experiences the period of stagnation.

Table 2

Selected economic indicators for the EU countries, USA and Japan between 1990-2005.

	Fixed capital formation (1)			Labour productivity (1)			Inflation (1)			Unemployment			Budget deficit		
Specification	1990-1995	1996-2000	2001-2005	1990-1995	1996-2000	2001-2005	1990-1995	1996-2000	2001-2005	1990-1995	1996-2000	2001-2005	1990-1995	1996-2000	2001-2005
Euro area	0.7	4.0	0.9	2.0	1.1	0.5	4.0	1.7	2.2	9.1	9.9	8.4	-5.1	-2.1	-2.5
Great Britain	-0.7	6.0	2.7	1.9	1.6	1.4	5.3	1.6	1.4	9.0	6.6	5.0	-5.3	0.3	-2.2
Sweden	-3.4	5.1	2.1	3.1	2.6	1.8	5.2	0.5	1.5	5.7	6.6	4.8	-5.6	1.1	1.2
Denmark	1.1	6.6	1.9	2.5	2.3	1.3	2.1	2.3	2.0	8.0	5.1	4.9	-2.2	1.2	1.4
Spain	0.6	6.3	5.1	1.8	0.8	0.4	5.4	2.6	3.2	14.9	14.6	10.4	-5.4	-2.7	0.0
Portugal	3.1	8.2	-3.0	1.7	2.5	0.2	8.0	2.4	3.2	5.5	5.5	5.9	-6.7	-3.5	-3.9
Greece	0.3	8.9	5.9	0.4	3.2	3.2	14.9	4.5	3.5	8.6	10.8	10.8	-12.0	-3.5	-5.4
USA	3.0	8.0	2.6	1.3	2.3	2.3	3.5	2.5	2.6	6.4	4.6	5.4	-4.4	0.0	-3.5
Japan	0.7	1.0	-0,3	1.3	1.3	1.7	1.6	0.3	-0.5	2.5	4.1	5.0	-1.0	-5.8	-6.8

(1) Average annual growth rate (%)

(2) Source: author's own calculations based on OECD Economic Outlook No. 75/2004 and No. 79/2006, Statistical Annex Tables, Table 1, 5, 12, 13, 18.

As a result of a very low growth rate of fixed capital formation European economies were not able to ensure sufficient employment of the production factors. Therefore, unemployment rate is relatively high, significantly higher than in the USA. Only inflation indicators in the Euro area are slightly lower than in the USA. Table 2 indicates also that the EU countries which are outside the Euro area do much better in the sphere of fixed capital formation and labour productivity, although they are gradually approaching the average values observed in the Union.

3. Maastricht criteria and stagnation processes in the EU countries

Accepting the framework of monetary and fiscal policies in the Maastricht Treaty marked a new stage in the economic policy of the EU countries. In comparison to the 1980s the difference was in subordinating this policy to persuing one goal only, which was limiting inflation indicators and then maintaining them at the lowest level possible. The main role in price stabilisation was given to monetary policy whereas fiscal policy was responsible exclusively for making it credible in the eyes of market participants by reducing the budget deficit. Although the Maastricht criteria permitted its upper limit to be at 3% in relation to the GDP, yet numerous documents and utterances pointed out that the more fiscal policy balances the budget, the more it contributes to general economic stabilisation [ECB, 2004]

Such an approach originated in the 1980s when there was a general conviction that the budget deficit and inflation are directly and strongly interrelated. It is true that since the 1990s the EU countries have been able to keep their budget deficit below the prescribed 3%-limit (Table 2). However, researchers vary in their opinions on whether it was due to a stricter financial discipline or a result of a good economic situation in world markets and industrial countries markets at that time [de Lima and co-workers]. Difficulties in balancing the budget appeared immediately (Germany, France, Portugal, Italy) after the boom had ended at the beginning of 2000. This may be a proof that the adjustment of the individual countries' financial infrastructure to the rules specified in the two above mentioned treaties was much poorer than it had been expected.

Nevertheless, the policy of reducing inflation had a definite impact on the economic processes, which was visible in the changes of the key macroeconomic indicators observed in those countries. The countries which in the years 2000-2005 revealed low inflation rates (e.g. Germany and France) achieved much worse results in the area of economic growth, had problems with balancing the budget and maintaining it within the Maastricht Treaty specified

limits. It should be noted that similar tendencies towards increased budget deficit occurred also in American and British economies. These countries, however, in the second half of the 1990s, revealed a budget surplus and could afford the luxury of using the fiscal spur to stimulate their economic growth without risking accelerated inflation. As far as Great Britain is concerned, from 2003 it exceeded every year the 3% limit for the deficit in relation to the GDP revealing the deficit at the level of 3.2-3.3% of the GDP. However, Great Britain does not belong to the Euro area and does not have to fear possible penalties for failing to meet this criterion [1].

Theoretically, the British remedy for economic growth was unavailable to France and Germany which in the second part of the 1990s had quite significant, though decreasing budget deficits[2] and they had a very small possibility of manoeuvre by using the budget policy as an instrument stimulating economy. Nevertheless, both countries - despite the sanctions threatening them - since 2002 have been tolerating budget deficits significantly exceeding the 3% limit. They have treated them as a „lesser evil" and a method of weakening stagnation processes. This policy, however, has not brought about expected results. Stagnation tendencies persisted. The fact that despite deeper budget deficits, inflation processes did not essentially get accelerated, which was a matter of serious concern when the Maastricht Treaty was formulated, can be treated as an „unexpected" effect of this policy.

Price stability in these countries translated into the stronger Euro, which grew in value in relation to the American dollar. The secondary impact of this phenomenon was reduction of the inflation pressure in the whole area. The question arises whether Germany and France, the countries which by holding the prices stable displayed exemplary obedience to the spirit of the Maastricht Treaty, did not pay for their loyalty by stagnation of their economic growth.

P. Bofinger presented an interesting explanation of the paradoxes related to the influence of the Maastricht Treaty on the economies of big countries of the Euro area which reveal low inflation rates [Bofinger, 2003]. He draws attention to the fact that the ECB while establishing nominal interest rates has no chance of affecting the real interest rates which are established at the national level in confrontation with the inflation rates noted there. Therefore, national differences in inflation rates are identical with the differences of real interest rates. If a given country is successful in price stabilisation, at the same time it notes higher real interest rates than the countries of higher inflation and, consequently, it faces the threat of slower economic growth which may entail an increase in budget deficit. The countries noting higher inflation rates are in a more comfortable situation. They can develop faster in the conditions of lower real interest rates without the necessity of making their budget deficits higher.

According to Bofinger, provisions of the Stability and Growth Pact provide a wrong framework for the economic policy of the Euro area countries as they subordinate their fiscal policy to the monetary policy objective (price stability), at the same time depriving it of any flexibility. The fiscal policy of the countries of low inflation should compensate the restrictive influence of monetary policy and not strengthen it, which, in turn, makes the pro-cyclical character of the economic policy even stronger.

The solution here could be a revision of the Stability and Growth Pact which would modify the 3% limit imposed upon the budget deficit and adjust it to the inflation indicators revealed by particular countries. If a given country had a low inflation rate (i.e., lower then ECB inflation target), then it would be allowed to exceed the 3% limit. In this way the framework would be created for the mixture of monetary and fiscal policies (policy mix), which would match the needs of the Euro area economies more and, first of all, would free these economies from the restrictive corset of monetary policy.

Bofinger's arguments cause that the answer to the above posed question about the negative results of the close observance of the Maastricht Treaty and Stability and Growth Pact recommendations for the economic growth and budget balance would be affirmative.

A comparative analysis of the long-term changes in real interest rates and economic growth rate in a broader context (Table 3) raises a number of doubts whether there is such a direct relationship between these macroeconomic quantities, as Bofinger perceives it. The example of Great Britain is significant here. For the whole period 2000-2005, the country in question revealed real interest rates much higher than Germany and yet, the British economy developed much faster. Also in the French economy, the economic growth indicators were more favourable despite the fact the level of the long-term interest rates was not much different from that noted in Germany. Bofinger's hypothesis can be confirmed, however, by the example of the US and to some extent, of Japanese economy.

Table 3

Real interest rate and economic growth in the biggest economies of the Euro area and big economies outside this area (2000-2005) (%)

Specification	2000		2001		2002		2003		2004		2005	
	P.	W	P	W	P	W	P	W	P	W	P	W
EURO area	3.3	4.0	2.6	1.9	2.6	1.1	2.0	0.7	1.9	1.8	1.2	1.4
Germany	3.9	3.5	2.9	1.4	3.4	0.1	3.1	-0.2	2.2	1.1	1.5	1.1
France	3.6	4.1	3.1	2.1	3.0	1.3	1.9	0.9	1.8	2.1	1.5	1.4
Italy	3.0	3.8	2.9	1.7	2.4	0.3	1.5	0.4	2.0	0.9	1.4	0.1
Great Britain	4.5	4.0	3.7	2.2	3.6	2.0	3.1	2.5	3.6	3.1	2.4	1.8
USA	2.6	3.7	2.2	0.8	3.0	1.6	1.7	2.7	1.6	4.2	0.9	3.5
Japan	2.5	2.9	2.1	0.4	2.2	0.1	1.3	1.8	1.5	2.3	1.7	2.7

P - long-term real interest rate calculated as a difference between the yield on 10-year government bonds and consumption price index for a given year
W - rate of growth of real GDP
Source: author's own calculations on the basis of the OECD Economic Outlook No. 79/2006, Statistical Annex Tables, Table 1, 18, 35.

Irrespective of the rightfulness of the arguments expressed by the advocates of the Maastricht Treaty and Stability and Growth Pact revision, in view of the economic growth stagnation in the Euro area, the problem of the optimum choice of the economic policy instruments seems to be still open. What must be analysed first, however, are the mechanism of the ECB rigidly defined inflation target's influence on the possibilities of overcoming the problem of the „European model of economic growth".

4. Price stability and the conditions of economy

4.1.Historical and political context of price stability policy

As a result of discussions which have been held in the industrial countries since 1960s on the subject of interdependencies between the price dynamics and the processes of economic growth, the advocates of treating price stability as the basic priority of economic policy are prevailing in the circles of theoreticians of economics [ECB, 2000]. This victory was mainly accounted for by the „monetarist breakthrough" in the economic theory. It must be stated, however, that practical attempts to implement monetarism into economy, especially in such countries as the United States, Great Britain or Japan, did not result in satisfactory outcomes [Bednarczyk, 1990]. It would be possible to defend the thesis that monetarism was more successful as a trend attacking theoretical foundations of Keynesian economics than as the foundation of the economic policy. Negligible practical merits of monetarism can be the result of an assumption adopted by the trend supporters that ensuring the very stability of prices should improve the market mechanism effectiveness to such an extent that the economy will be able to embark on the path leading to stable growth and remain there for the time long enough to be able to secure full employment of the production factors [Friedman, 1977]. In practice it turned out that the adjustment processes in economy (e.g. in response to endo- and exogenous shocks) are slower than it is suggested by theoretical assumptions (imperfect

flexibility of wages and prices). Consequently, the lack of balance, usually accompanied by slower economic growth and higher than natural unemployment, can last for a long time entailing high economic and social costs.

The latter aspect of „market imperfection" is emphasised particularly by the representatives of new Keynesian economics. Their views, however, were not taken into account by economic decision-makers (especially in the EU countries) to such an extent as to affect significantly the final shape of the economic policy foundations. On the contrary, since the 1990s this policy has been dominated by the way of thinking typical for the representatives of neo-classical economics, which in the Euroepan countries has become a type of new orthodoxy defining, like monetarism in the 1980s, economic standards [Huffschmidt, 2003 and OECD, 2003]. Adoption of such a strategy led to weakening of the balance between the components of economic policy. Monetary policy together with currency policy became the two dominant tools of affecting economy while fiscal policy became of lesser importance and started to be treated as a synonym of an undesirable and negative influence of the state on market mechanisms distorting their effectiveness and the ability of self-regulation. The evidence of the dominating role of monetary policy among the methods and tools of the economic policy is a particular role which is assigned to central banks of the countries which signed the Maastricht Treaty and then the Stability and Growth Pact. They became strict reviewers of the economic policy, practically independent from governments (including the European Central Bank), the centres of economic power which rigorously guard one thing only, namely, price stability, no matter what consequences the execution of this objective will entail, especially for other important objectives of economic policy, such as economic growth or employment.

The rationale for this policy can be understood only in the context of implementing the single currency as financial stability in the Euro zone markets prevents wide fluctuations of

the single currency in the international financial markets. The tendencies to appreciate Euro to dollar rates which have been observed recently give rise to a legitimate question: what are the limits of sacrificing economic growth to the benefit of the stable currency in the Euro zone countries?

4.2. Conclusions from the hitherto policy of price stability in the EU countries.

Since the 1990s, the policy of price stability in the EU countries has been implemented in two stages. The beginning of the first stage was marked by signing the Maastricht Treaty in 1991 which made price stability one of the criteria of the accomplishment of the European Monetary Union. The second stage started when 11 EU countries introduced the single currency (1999). Gradual adjustment of the price rise indexes in particular EU countries to the levels recorded in the countries of the lowest inflation was a characteristic feature of the first stage.

In the second stage, the countries using the single currency put every effort into maintaining low inflation indicators. This policy was guaranteed by the European Central Bank which aimed at keeping inflation in the Euro zone at the level close to 2% per year. [ECB, 2005]. The countries outside the Euro zone but aspiring to join the Euro countries were, as far as price stability is concerned, in a similar situation as the Euro countries before 1999, i.e. they had to reduce inflation to meet the convergence criteria. Thus, it can be stated that since the 1990s the main feature of the price policy in the European Union has been price reduction followed by maintaining the price rise indexes at the lowest possible level. The said level has been recently coincident with the European Central Bank's inflation target.

In order to define the influence of the price stability policy implemented in the EU countries on the economic condition of these countries, the period between 1993 and 2003 was analysed. The period in question started with a mini-recession in 1993 and ended in the slowed down growth in the years 2002-2003. Within the 11 years examined, the EU countries

noted positive growth indicators (except 1993) but revealed some differences with reference to utilised production capacity and the GDP growth. The indicators of the average annual output gap, price rise, real GDP growth and, additionally, average annual indicators of „economic success" were calculated for the EU countries (with the exception of Luxembourg). The economic success indicator was calculated as a sum of the average annual output gap and average annual GDP growth indicators, similarly to the so called indicators of economic misery functioning in literature and being the sum of the price rise indexes and unemployment rates. [Acocalla, 2002]

In Table 4, the EU countries (EU-15) are divided into three groups by the average annual indicators of economic success and, additionally, by percentage values of their shares in the EU-15 GDP. Thus, the first group includes the countries representing the highest indicators of economic success and at the same time representing more than a quarter, i.e. 27.24% of the EU-15 GDP. The second group consists of the countries characterised by the average value of economic success and contribution of 31.28% to the Union's GDP. The results for the three groups are compared with similar results for Japan and the United States.

The analysis of the data presented in Table 4 reveals that in the countries where the biggest economic success (measured by utilised production capacity and the GDP growth rate) was noted, the average annual inflation rate was between 1.74 - 3.48%. It is interesting that also in the second group of countries, the inflation rates were not far from the values noted for the first group. If it was not for Greece, which evidently raised the top inflation value for this group of countries, then the lower indicators of economic success would be accompanied by lower inflation values. A similar regularity was also observed for the countries which were in the third group. In these countries, the lowest indicators of economic success were accompanied by the lowest inflation rates.

TABLE 4

Average annual indicators of economic success for the EU-15 countries, Japan and the USA (1993-2003)

Specification	Average annual value of economic success indicator	Average annual value of real GDP growth	Average annual output gap	Average annual consumer price rise	Average annual price rise intervals
1. Ireland	6.97	7.51	-0.54	2.93	
Netherlands	3.41	2.40	+1.01	2.34	
Austria	2.24	2.03	+0.21	1.74	1.74 - 3.48
Great Britain	2.23	2.90	-0.67	1.74	
Portugal	1.88	2.13	-0.25	3.48	
Share in EU-15 GDP = 27.24%					
2. Denmark	1.78	2.25	-0.47	2.57	
Spain	1.36	2.82	-1.46	3.32	
Greece	1.36	2.95	-1.59	6.18	1.65 - 6.18
Belgium	1.11	1.95	-0.84	1.79	(3.32)
France	0.80	1.85	-1.05	1.65	
Share in EU-15 GDP = 31.28% (I+II) = 58.52%					
3. Italy	0.72	1.50	-0.78	3.09	
Sweden	0.48	2.49	-2.01	1.65	
Germany	0.37	1.19	-0.82	1.66	1.65 - 3.09
Finland	-0.61	3.23	-3.84	1.75	
Share in EU-15 GDP = 41.22% (I+II+III) = 99.74%					
Japan	0.17	1.17	-1.0	0.14	
USA	2.28	3.22	-0.94	2.50	

Source: OECD [2004], ECB [2005]

Although the differences between the inflation rates related to the economic success indicator values in the countries belonging to each of the three distinguished groups are not very big, yet the clear regularity undermining the straightforward relationship between the price stability range and the indicators of utilised production capacity and economic growth can be a bit surprising. As the Table 1 indicates, the countries which noted slightly higher inflation, revealed also higher indicators of utilised production capacity and higher economic growth. This relationship can be read in a reverse way: the countries noting higher growth were able to maintain lower (though not the lowest) inflation rates.

These regularities are even more visible if one takes into account two big market economies, namely the Japanese and American one. Japan, which has indicated almost zero inflation since 1993, reveals also one of the lowest indicators of economic success (only

Finland reports a lower one). On the other hand, the USA developing at the annual rate of 3.22% and having one of the highest indicators of economic success, reveal the annual price rise index of 2.5%, which is among the highest ones in the examined group of countries. Also the fact that a 2.5% price rise in the USA amounts to almost a half of the price range characterising the fastest developing and most stable of the EU-15 countries (2.59% - group one and 2.49% - group two without Greece) is worth mentioning.

The above said suggests that there is a certain price rise level which is neutral from the point of view of the development processes occurring in a given economy. This level can be different for every economy. For example, in particular economies of the EU-15 countries belonging to the first group, it can be at the level from 1.74% to 3.48%. A persistent attempt to reduce inflation in these countries could result in lower economic growth and lower level of utilised production capacity. On the other hand, a higher inflation rate (caused, e.g. by a more expansive monetary or fiscal policy) may bring about a further price rise leading to gradual limiting of the functions of market mechanisms and negative effects in the field of economic growth and the degree of utilised production capacity (classical model of stagflation).

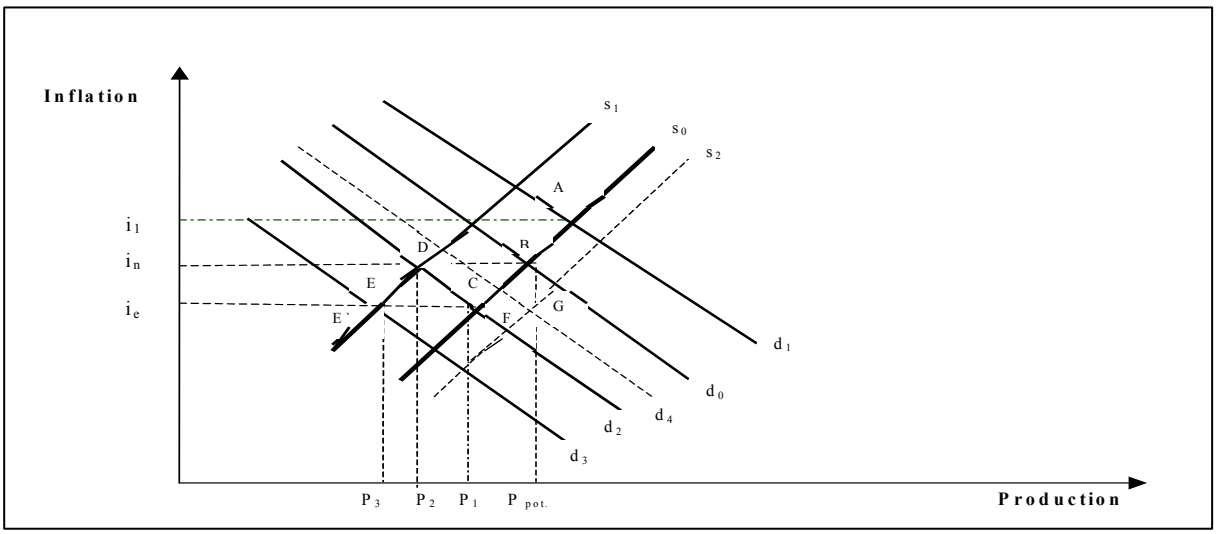
Hence, it seems that although the European Central Bank's policy of reducing inflation may be right, it cannot be formulated in the way which does not take into account the price specificity of particular countries, especially those which have a chance of development in the situation of slightly higher inflation. A simple consequence of such a policy can be convergence with the „Japanese model" where the extremely low inflation indicators are accompanied by the difficult to interpret changes in functioning of the market mechanisms and economic growth stagnation.

4.3.Two variants of economy's reaction to the policy of reducing inflation

A postulate to change the rules of the price stability policy in the European Union and the price convergence criterion can be justified theoretically.

In Figure 1, A stands for the economy functioning in the environment of inflation i_1, higher than the EBC's inflation target or price convergence criterion i_c.. Let us assume that the level of the so called neutral inflation is between i_1 and i_c and the economic growth rate complies with this level making the real and potential production equal (which seems to be close to the above described situation of the EU-15 countries in the 1990s). These conditions are fulfilled by point B lying at the intersection of the supply line s_0 and demand line d_0. Economy can reach this point when, for example, a period of fast development is followed by cooling. Inflation in point B conformable with the state of balance is yet too high in relation to the reference value i_c. In order to be closer to this point, a country must implement a restrictive economic policy (higher interest rates, limited budget deficit) which will result in the shift of the line d_0 to d_2 and attainment of temporary balance in point C where production size will be lower than the potential level (P_1 - P_{pot}).

Figure 1: Neutral inflation and Central Bank's inflation target



Changes occurring in economy after it has achieved temporary balance in point C can have a dual course. In variant one, restrictive economic policy executed by authorities can lead to the conviction of economic subjects that business conditions have worsened (the supply line shifted from s_0 to s_1). It can be a consequence of the difference which appeared between the planned sales value (a faster price rise assumed) and the real sales value accomplished at a lower price rise. „The loss" incurred by companies can make them limit production even further and administer prices in such a way as to make up for the drop in receipts which resulted from the lower production. This type of companies' price policy is probable in the markets characterised by a high degree of monopolisation by both employers and employees. Lower production and lower employment will not bring about adjustments in wages, which are rigid. Accordingly, employers, in order to maintain the same profits, may tend to enforce more favourable prices for themselves by, for example, launching „improved products" at slightly higher prices, which means the movement along the line d_2 towards point D. If authorities, however, were determined to attain inflation below the neutral inflation level by continuing restrictive monetary and fiscal policies (movement along the demand line from d_2 to d_3), then the economic balance would shift gradually to point E or even E' (expectation effect) which, in turn, would lead to the limited production ($P_3<P_2<P_1$). Then, the economy would be in the middle period of development characterised by low inflation and low economic growth generated by production changes going below the potential level. Further following of the" price leader" meaning a shift of i_c downwards would strengthen this process.

A more optimistic variant lets us assume that reducing inflation (transition from point A to point B and then point C) will be treated by companies as an improvement in the production conditions which would mean the shift of the supply line s_0 to s_2. At a given demand curve d_2 the effect of improvement in the production conditions would spread

between a further drop in the inflation rate and the real production growth. The location of point F determining the influence of the improved production conditions on lower inflation and production growth depends on the slope of the d_2 curve. With time, potential growth of real wages could lead to the shift of the demand curve to the position d_4, which would mean equal levels of real production and potential production at the inflation i_c. In point G the economy would reach a long-term balance, accompanied by full employment of production factors and inflation rate permanently lower than i_n.

It is difficult to say to what extent the second variant of economy's reaction to the policy of inflation reduced to below r_n is realistic. It seems this is more likely in the situation when a restrictive monetary policy is accompanied by a fiscal policy relying on reduced taxation rates. Then, we deal with a situation described by the advocates of the so called supply side economics. However, in the situation of low inflation rates, highly monopolised markets and reluctance of economic authorities in the EU-15 countries to reduce taxation, the variant assuming that enterprises will react to limited receipts (at rigid wage costs) by limited production seems more probable. Thus, economic balance is more likely to shift from point C to point E. In such a case, a question arises about the sense of disturbing the balance of economy in point B if the benefits from reduced inflation are negligible whereas losses in the field of production can turn out to be significant.

5. Towards new policy of price stability?

Both the data included in this paper and their interpretation are of preliminary nature and consequently conclusions for the price stability policy are also of preliminary nature. Nevertheless, on the basis of the carried out analysis it is possible to defend the thesis that the price stability policy implemented in the EU countries (where the European Central Bank

plays an important role) should be changed towards a more flexible one and related to the changes in the production size and the degree of utilised production capacity.

A more flexible price stability policy means that the European Central Bank should reject its practice of formulating the inflation target on the basis of theoretical discussions and rely more on practical observations of the hitherto price changes in Euroland countries as well as the economic processes accompanying these changes, especially those reflected in the economic success indicators. A possibility of setting the lowest possible ECB's inflation target at the level of 0% should be excluded as there is no example of any bigger economy which would develop dynamically and reveal high level of utilised production capacity at zero inflation. It seems more justified then to set the lowest inflation target at the level of the lowest average annual price rise index recorded in the countries of the highest or average economic success indicators. In the years 1993-2003, the lowest indicator stood at 1.74% for the most dynamically developing countries and at 1.65% for the countries from the middle group. Also the top inflation target should be formulated in a similar way. For a given calendar year, the ECB's inflation target can be set on the basis of the inflation rates and economic success indicators noted in the Euroland countries in the last 5-10 years, what would stabilize the inflation expectations.

Introducing this type of changes in the field of the inflation target would cause that the ECB would not perceive slightly higher inflation in the most dynamically developing countries (indicating slightly higher neutral inflation) as a reason for implementing a stricter monetary policy. Such countries would develop faster to the benefit of the whole group. This policy (combined with a possible modification of fiscal criteria) would also give a chance of a wider use of internal demand in the Euroland countries as a development stimulus, which seems relevant when one takes into account both the size of this market and its importance in global economy. The biggest economies in the group (Germany, France) would get a chance

of faster development and fuller utilisation of their production capacity. What is more, the principles of formulating the stability and development policy in the Union would become closer to those which the American economy has employed successfully since WW II and which treat „employment, production and purchasing power" [Tobin] as priorities whereas price stability is a significant prerequisite of attaining them.

6.Summary

The problem of price stability policy in the EU countries is, undoubtedly, one of the most important aspects of economic policy. The targets in this area determine the character of the policy and, consequently, development and growth within the Union. The analysis of inflation processes in the Union in the years 1993-2003 and the analysis of principles used for the formulation of the inflation target by central banks, including the ECB, led to the conclusion that the „policy of catching up with the price leader" followed by stabilisation of prices in particular EU countries, may not be the best one from the point of view of average annual prospects of economic development in these countries. On the contrary, as a result of this policy, some countries of this group characterised by a higher level of neutral inflation can develop more slowly and not utilise their production capacity in full. Thus, it seems reasonable to revise the price stability policy and, in particular, the principles of the inflation target formulation by the ECB.

NOTES

1. The statistics concerning budget deficit, inflation and economic growth are quoted after: OECD, Economic Outlook, No 79/2006, Statistical Annex Tables, Table 1, 18, 27.

2. In 2000, Germany achieved a 1.3% budget surplus in relation to the GDP.

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